



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/719,028	11/24/2003	Masao Nakagawa	031290	9157
23850 7590 08/07/2007 KRATZ, QUINTOS & HANSON, LLP 1420 K Street, N.W. Suite 400 WASHINGTON, DC 20005			EXAMINER GESESSE, TILAHUN	
			ART UNIT 2618	PAPER NUMBER
			MAIL DATE 08/07/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/719,028

**Applicant(s)**

NAKAGAWA, MASAO

**Examiner**

Tilahun B. Gesesse

**Art Unit**

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 May 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 22, 2007 has been entered.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Santhoff (US 20040002346) in view of Weaver, Jr. et al (6,108,364).

Claim 1, Santhoff teaches a UWB repeater (see page 7, paragraph 0079, lines 7-11 and figure 13) in which UWB units 1110 relays information to UWB requesting unit 1105, comprising:

Santhoff teaches a receiver for receiving UWB pulse signals (see page 6, Paragraph 0071 and figure 19) in which the Santhoff pulses are considered to be in series being received by the receiver.

Santhoff teaches a transmitter for transmitting UWB pulse signals (see page 6,

paragraph 0071 and figure 20) in which relay 1110 transmits pulses of signals , considered in series , as disclosed by Santhoff.

Santhoff teaches transmitting timing different from the receiving timing by a pulse unit in order to prevent a sneak path wave between the receiver and the transmitter (see page 6, paragraph 0071) in which superposition pulsed or adjacent pulse ignore by the receiver to decrease interfering pulse and transmission can be postponed or delay acknowledging response.

Santhoff does not expressly teach a relay controller. However, Weaver teaches a repeater that delay the received signal by predetermined amount (see abstract and figure 3).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize a relay control , such as delay and switching technique , for controlling the receive and transmit adjacent signals , as taught by Weaver, in order to provide a greater amount of isolation between transmitting and receiving signals (see column 6, lines 46-51 and column 9, lines 49-52).

Claim 2 , Santhoff does not expressly teach a relay controller. However, Weaver teaches a repeater that delay the received signal by predetermined amount (see abstract and figure 3).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize a relay control , such as delay and switching technique , for controlling the receive and transmit adjacent signals , as taught by Weaver, in order to provide a greater amount of isolation between transmitting and receiving signals (see column 6, lines 46-51 and column 9, lines 49-52).

Claim 3, Santhoff does not expressly teach a relay controller. However, Weaver

Art Unit: 2618

teaches a repeater that delay the received signal by predetermined amount (see abstract and figure 3).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize a relay control , such as delay and switching technique , for controlling the receive and transmit adjacent signals , as taught by Weaver, in order to provide a greater amount of isolation between transmitting and receiving signals (see column 6, lines 46-51 and column 9, lines 49-52).

Claim 4 Santhoff teaches a UWB communication system (see page 7, paragraph 0079, lines 7-11 and figure 13) in which UWB units 1110 relays information to UWB requesting unit 1105, comprising:

Santhoff teaches a receiver for receiving UWB pulse signals (see page 6, paragraph 0071 and figure 19) in which the Santhoff pulses are considered to be in series being received by the receiver.

Santhoff teaches a transmitter for transmitting UWB pulse signals (see page 6, paragraph 0071 and figure 20) in which relay 1110 transmits pulses of signals , considered in series , as disclosed by Santhoff.

Santhoff teaches transmitting timing different from the receiving timing by a pulse unit in order to prevent a sneak path wave between the receiver and the transmitter (see page 6, paragraph 0071) in which superposition pulsed or adjacent pulse ignore by the receiver to decrease interfering pulse and transmission can be postponed or delay acknowledging response.

Santhoff does not expressly teach a relay controller. However, Weaver teaches a repeater that delay the received signal by predetermined amount (see abstract and figure 3).

Art Unit: 2618

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize a relay control , such as delay and switching technique , for controlling the receive and transmit adjacent signals , as taught by Weaver, in order to provide a greater amount of isolation between transmitting and receiving signals (see column 6, lines 46-51 and column 9, lines 49-52).

### **Conclusion**

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tilahun B Gesesse whose telephone number is 571-272-7879. The examiner can normally be reached on flexible schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on 571-272-7899.

The Central FAX Number is 571-273-8300. For patent related correspondence, hand carry deliveries must be made to the Customer Service Window (now located at the Randolph Building, 401 Dulany Street, Alexandria, VA 22314), and facsimile transmissions must be sent to the Central FAX number .


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR

Art Unit: 2618

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TG

August 2, 2007



TILAHUN GESESSE  
PRIMARY EXAMINER